Minority Views of the Democratic Caucus of the Committee on Science, Space, and Technology On the FY2012 Budget Request

The nation's research and development agencies have a long history of investing in research and education programs that return very significant economic payoffs to the American people. The President's FY 2012 budget request continues the commitment to investing in our future while at the same time acknowledging the difficult fiscal environment in which we find ourselves. While we can disagree with some of the specific choices and priorities contained in the Administration's FY 2012 budget request, we share the President's goals of maintaining a strong science and technology enterprise and ensuring that our young people are prepared for the technical careers of the future.

The choice before us as a nation is stark: we can focus on the need to create jobs now and in the coming years by making sure that we are taking the necessary steps to ensure that we remain economically strong and competitive in a challenging international marketplace, or we can engage in short-sighted cutting of our capabilities for innovation and education to meet arbitrary budgetary targets. If the past is any guide, it is clear that investments in science, technology and STEM education must be a cornerstone of any serious long-term strategy to keep America competitive.

The budget resolution that these Views and Estimates are intended to inform is being developed even while the *FY 2011* budget remains in play. The House consideration of the FY 2011 budget has been marked by severe cuts to important research and development (R&D) initiatives in order to meet arbitrary fiscal goals. The end result of those cuts, if enacted into law, would be thousands of layoffs and furloughs among the best and brightest of our scientists and engineers; curtailment of critical research activities to protect the public from environmental hazards; fewer innovative technologies to enable the industries of the future; and serious damage to our core scientific and technological capabilities.

The President's FY 2012 budget request, on the other hand, recognizes that even in these challenging economic times, we need not—and should not—sacrifice our future for the sake of crippling cuts to a small fraction of the total federal budget. With vision and perseverance, we can be both fiscally responsible *and* make the necessary investments to keep the American economy competitive in the coming decades while keeping our people and our environment healthy.

Thus, while there are findings in the Majority's Views and Estimates with which we can agree, it is clear that the overall thrust of those Views and Estimates is in the direction of advocating substantial cuts to important research and development programs and initiatives. While there are undoubtedly areas of savings that could be found by careful examination of programs and projects, the broad-brush notion that whole areas of science and technology are not needed to prepare for an uncertain future does not have a credible basis in either fact or analysis. Thus, vague and unsupported claims that agencies like the

Environmental Protection Agency are regulating "based on insufficient or faulty science"—and thus should have their funding cut—do little to advance the debate over appropriate R&D funding priorities nor do they provide thoughtful guidance to the Budget Committee as it attempts to construct an overall federal budget blueprint.

That is not to say that there is nothing of value that can be said about the choices before us as a nation. For example, one need only look at the cuts that were adopted in H.R. 1 to realize that the path advocated in that legislation and in the Majority's Views and Estimates would lead thousands of the most promising scientists and engineers in the nation to lose their jobs and abandon their research. After years of bipartisan calls for young people to come into science and math and engineering, the outcome of enacting H.R. 1 or the policies in the Majority's Views and Estimates would be the same as posting a big "Help Not Needed" sign on every National Laboratory and university throughout the country. That would be a tragedy—and one that the President's FY 2012 budget request seeks to avoid.

Every family understands that there are consumption expenditures and investment expenditures. We sacrifice to make sure our children have shoes, medical care, and a good education. When money is tight, we cut back on restaurant dinners, new clothes for ourselves, and vacation trips--those things that might be nice to have, but are not necessary to keep a roof over our heads today or build a better life for our family tomorrow. Even when times are tough, however, we are willing to take out loans or take on a second job to help cover the costs of college. People understand that shortchanging our children's education will leave them less prepared for what will come. In our private lives we understand that the investments we make today, even when times are hard, will pay dividends in the future. This same logic applies to meeting our public responsibilities.

In short, Democratic members of the Committee on Science, Space, and Technology believe that if we do not invest in education, in new ideas, and in new processes, we will deny our children the capacity to deal effectively with the crises that their generation will have to tackle. It is irresponsible not to invest in the future, whether you are talking about your own children or speaking of the legacy we as a society leave the generations that will succeed us.

The Democratic Members of the Committee thus endorse the President's budget request for FY2012 in the area of research and development. While we might make slightly different recommendations across specific program areas, taken as a whole, the Administration has worked hard to find savings to balance their continuing commitment to investing in our nation's future. We endorse the Administration's approach of guarding from cuts those investments in innovation, education and infrastructure that contribute to the conditions that allow Americans to continue to do what we have done time and again since the founding of the Republic:

invest to keep America economically competitive and strong and to create good jobs now and in the future;

build opportunities for every citizen to unleash their potential to be creative, productive and actively contribute to this great democracy; and leave for our children a world that is better than the one we inherited.

We should add that these investments will build not just a better society, but also make this country a better place to do business and develop a workforce with the skills to excel, the ambition to create, and the means to succeed.

Programmatic Guidance

While programmatic guidance is of limited utility to the Budget Committee, what follows are specific observations, agency-by-agency, where the agreement or disagreement with the Majority Views and Estimates is significant enough to justify comment.

National Aeronautics and Space Administration (NASA)

While supportive of the President, Democratic members are disappointed with the NASA request, especially in light of the work that Congress undertook last year to forge a constructive path forward for the nation's space program. The compromise that was enacted into law is not reflected in the proposed NASA budget request. The request cuts NASA's overall budget plan and its human exploration budget even further than before, delays the development of the next generation vehicles, and eliminates any concrete destinations or milestones beyond the International Space Station that can inform decisions on needed investments in space technology. We agree with the Majority's view that NASA's FY 2012 request is not reflective of the priorities established in the NASA Authorization Act of 2010 as the Administration has placed a relative higher priority on commercial crew and underfunded development of the Space Launch Vehicle (SLS) and Multiple Purpose Crew Vehicle (MPCV).

Contrary to the Majority's position on Earth Science, Democratic members have been supportive of the higher funding accorded this area in last year's request. NASA has indicated that reduced out-year funding for Earth Sciences will necessitate delaying the start of two missions, CLARREO and DESDynI. While this is unfortunate, Democratic members acknowledge the budgetary challenges facing NASA's Science program. However, we are concerned that delays in initiating these missions could lead to higher development costs and also delay the collection of data. This data would provide significant utility in observing, understanding, and addressing key environmental challenges including complete El Nino/ La Nina cycles, reflected solar radiation and Earth thermal radiation, earthquakes, volcanic eruptions, landslides as well as new observational information for monitoring forests, agricultural resources, and mountain glaciers.

National Science Foundation (NSF)

Democratic Members strongly support fully funding NSF at the levels requested by the President. There is no record to support the Republican views that "... new and expanded Administration priorities continue to excessively divert precious research and

development funds from other worthy endeavors." Innovation in science and the creation of cross-disciplinary science initiatives that tie basic research to technology innovation, at agencies that fund research and development both reflect and help drive creativity across the nation's colleges and universities.

Department of Energy (DOE)

Democratic Members strongly reject the Republican preferences for cuts to programs at the DOE. The cuts outlined in the FY2011 Continuing Resolution would lead to job losses in the thousands spread across the National Labs in California, New Mexico, Washington, Colorado, Illinois, Tennessee, New York, and Virginia, and many thousands more at universities and companies all across the country. Not only would some of the country's best and brightest find their careers interrupted or ended, but the Nation would also lose the fruits of their hard work and creativity. DOE programs and the National Labs fill a void in the U.S. innovation pipeline that industry and universities cannot or will not do alone, tackling some of our most important national challenges at the cutting edge of questions about material sciences, energy sciences, emerging sources of energy, and conservation.

Democratic Members believe that we must take a comprehensive approach to assure a safer, more sustainable energy future for our children, and this includes supporting activities from basic to applied research, and beyond. Assuming that the current level of private investment in energy technologies is sufficient, that companies will do all of the necessary cutting-edge research on their own, or that the marketplace will naturally pick cleaner technologies, grossly oversimplifies the complexity and scale of the energy and environmental challenges that we face today, and threatens our future international competitiveness. With the U.S. accounting for roughly 8 percent of global oil reserves and a quarter of global oil demand, we cannot drill our way to energy independence. If the country is to have any hope of developing a long-term solution to the depletion of fossil fuels, or of reducing pollution from our need to continue to use fossil fuels in many applications for generations to come, those answers will likely be found through research by the National Labs, universities, and companies supported by DOE. However, those answers will be much harder to find if we undercut DOE's vital research efforts.

National Oceanic and Atmospheric Administration (NOAA)

Democratic Members endorse the President's request for NOAA. We are particularly concerned that funds sufficient to launch the full array of weather and climate sensors and satellites be made available in the FY 2012 budget.

National Institute of Standards and Technology (NIST)

Democratic Members are pleased that the President's request provides support for the NIST lab complex as well as the Industrial Technology Services. The budget request is consistent with COMPETES Act goals and continues the Manufacturing Extension Program (MEP) on its doubling path. The MEP remains a very effective tool for

supporting small businesses. This program's focus on improving manufacturing capabilities is almost unique across the Federal government.

Department of Homeland Security (DHS)

The Democratic Members are supportive of the President's request for DHS Science and Technology. We are particularly pleased with the strong support shown in that budget for the Staffing for Adequate Fire and Emergency Response (SAFER) grants which support our Nation's emergency response community. However, the cuts to the Assistance to Firefighter Grants (AFG) program are troubling, and we would prefer that this program be fully funded at the FY2010 level.

Environmental Protection Agency (EPA)

The Majority's Views and Estimates state that: "Due to EPA's disturbing pattern of regulating based on insufficient or faulty scientific evidence, the Committee feels that it is unnecessary to continue EPA's research at existing levels until reforms are undertaken." Democratic Members strongly reject this view and support the President's request for EPA science.

The Majority make specific reference to the Integrated Risk Information System (IRIS). The Majority's characterization of the program is unrecognizable to anyone who has studied the record. EPA is currently trying to gain greater control over the IRIS process, an effort that the Majority describes as resulting in "decreased transparency" so that they can begin adding entries at a pace greater than two or three a year. The assertion that the IRIS "system is being used for ulterior purposes" is not buttressed by analysis. The problem with science at EPA is not that they do not do it well or that they abuse it, but that it is used by those who fear regulation to postpone risk assessments. IRIS entries go through multi-year reviews and some have even been forced to National Academy Assessments, and these endless efforts go on more than a decade without ever leading to an entry. That is not EPA's doing, but rather reflects the efforts of those who use the argument of scientific uncertainty to demand just one more study, one more literature review, one more outside panel before any regulation can ever be approved for action. IRIS has been the subject of multiple hearings by the Investigations and Oversight Subcommittee in the 110th and 111th Congresses as well as multiple reports by the Government Accountability Office (GAO)—the facts are available for anyone to review.

Department of Transportation (DOT)

Democratic Members of the Committee support DOT's continuing research into ways to build and maintain infrastructure in a manner that is energy efficient and reduces impacts on the environment; to identify and address deterioration and other potential safety problems with new and existing infrastructure; and to find efficient, sensible ways to reduce traffic congestion. We particularly support programs that would successfully transition research findings to state and local transportation planners.

Regarding the Federal Aviation Administration (FAA), Democratic Members are supportive of FAA's Research, Development and Technology initiatives, including NextGen, and urge funding of such initiatives in FY 2012 at the level requested by the Administration. In addition, Democratic Members look forward to receiving additional information at an upcoming hearing before finalizing our views on the proposed increase for the FAA's Office of Commercial Space Transportation.

Minority Views of the Democratic Caucus of the Committee on Science, Space, and Technology On the FY2012 Budget Request

7. Edwards Iredeica & Wilson

Minority Views of the Democratic Caucus of the Committee on Science, Space, and Technology On the FY2012 Budget Request

Eddie Bernice Johnson Donna F. Edwards

Ben R. Luján Jerry F. Costello

Lynn Woolsey Hansen Clarke

Brad Miller Marcia L. Fudge

Daniel Lipinski Frederica S. Wilson

Paul D. Tonko John P. Sarbanes

David Wu
Terri Sewell

Zoe Lofgren Jerry McNerney